WHAT IS CLAIMED IS:

1. A wireless LAN system comprising:

a base station;

at least one wireless LAN terminal connected to said base station via a wireless LAN; and

a packet transmission system for transmitting a packet between said base station and said at least one wireless LAN terminal via the wireless LAN, said packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating the packets accumulated in said accumulating means; and

transmitting means for transmitting the packet capsulated by said capsulating means.

2. The wireless LAN system according to claim 1, wherein said packet transmission system further comprises arbitrating means for transmitting delay request information for delaying transmission of packets from said base station equipment to said wireless LAN terminal such that the packet transmission does not overlap with other terminals, thereby arbitrating transmission of packets from said wireless LAN terminal to said base station equipment so as not to cause a

collision thereof.

3. The wireless LAN system according to claim 1,

wherein said wireless LAN terminal is associated with a
PCF mode, and said base station sets a NAV time and gives timing
provided to transmit a capsulated packet, to said wireless LAN
terminal.

4. The wireless LAN system according to claim 1,

wherein said packet transmission system further
comprises means for adjusting a period for transmitting a
capsulated packet according to the number of real time sessions
active via said base station.

5. The wireless LAN system according to claim 1,

wherein said packet transmission system further
comprises means for collecting CODEC minimal periods
corresponding to the number of said wireless LAN terminal set
every said base station and adjusting the longest CODEC period of
the resultant minimal periods as a transmission period of each
capsulated packet.

.6. The wireless LAN system according to claim 1, further
comprising:

an IP exchanger having said packet transmission system;
a table in which IP addresses of the wireless LAN
terminal connected to every said base station and information

indicative of whether said at least one wireless LAN terminal is able to receive capsulated packets are registered; and

means for performing control for allowing said IP exchanger to capsulate prioritized packets based on the information registered in said table and causing said IP exchanger to transmit the capsulated packet, if transmission destination IP addresses of received packets respectively correspond to IP addresses of said wireless LAN terminal and said wireless LAN terminal is able to receive the capsulated packets, and allowing said IP exchanger to transmit the received packets to said base station as they are if not so.

7. The wireless LAN system according to claim 1, wherein said packet transmission system further comprises:

arithmetic means for computing use efficiency of a general queue for accumulating general packets other than prioritized capsules, using a predetermined arithmetic expression; and

control means for changing coefficients of the arithmetic expression according to the state of accumulation of the general queue, thereby controlling the value of the use efficiency computed by said arithmetic means.

8. The wireless LAN system according to claim 7, wherein said predetermined arithmetic expression is represented as follows:

$$RTT = (\alpha \times K \times 01d\_RTT) + ((1-\alpha) \times New\_Round\_Time\_Sample)$$

$$0 \le \alpha < 1, 0 < K \le 1$$

where 01d_RTT indicates an RTT value up to date, New_Round_Time_Sample indicates the time from the transmission of the latest TCP packet to the reception of an ACK, and K and α indicate coefficients, and

said control means changes the value of the coefficient K according to the state of accumulation of the general queue.

9. A base station including a packet transmission system which comprises;

sorting means for sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating the packets accumulated in said accumulating means; and

transmitting means for transmitting the packet capsulated by said capsulating means.

10. A wireless LAN terminal including a packet transmission system which comprises;

sorting means for sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating the packets accumulated in said accumulating means; and

transmitting means for transmitting the packet capsulated by said capsulating means.

11. A packet transmission system comprising:
sorting means for sorting received packets into prioritized packets and packets other than the prioritized packets; and
transmitting means for transmitting the prioritized packets sorted by said sorting means.

12. The packet transmission system according to claim 11, wherein said sorting means further sorts the prioritized packets into moving pictures and voice packets.

13. The packet transmission system according to claim 11, wherein only when the received packets are UDP and IP ports coincide with IP ports registered in advance respectively, said sorting means sorts the received packets into the prioritized packets.

14. The packet transmission system according to claim 11, wherein said sorting means sets queues to general packets other than the prioritized packets every MAC addresses.

15. The packet transmission system according to claim 11, wherein said transmitting means transmits prioritized capsulated packets with general packets being respectively interrupted between the prioritized capsulated packets.

16. A packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating the packets accumulated in said accumulating means; and

transmitting means for transmitting the packet capsulated by said capsulating means.

17. The packet transmission system according to claim 16, wherein said transmitting means transmits the capsulated packet in matching with a CODEC period.

18. The packet transmission system according to claim 17, wherein said transmitting means transmits the capsulated packet in a period T that satisfies $d \leq T \leq C$ where the CODEC period is C and the minimum period necessary for terminal reception is d.

19. The packet transmission system according to claim 16, wherein said sorting means further sorts the prioritized packets into moving picture packets and voice packets, and said capsulating means capsulates the prioritized packets every moving picture and voice packets.

20. The packet transmission system according to claim 16,

wherein only when the received packets are UDP and IP ports coincide with IP ports registered in advance respectively, said sorting means sorts the received packets into the prioritized

5 packets.

21. The packet transmission system according to claim 16,

wherein said sorting means sets queues to general packets other than the prioritized packets every MAC addresses.

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22. The packet transmission system according to claim 16,

wherein a capsulated packet transmission period of said transmitting means is counted by an interval timer.

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23. The packet transmission system according to claim 16,

wherein said transmitting means transmits prioritized capsulated packets with general packets being respectively interrupted between the prioritized capsulated packets.

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24. A packet transmission method comprising the steps of:

sorting received packets into prioritized packets and packets other than the prioritized packets; and

transmitting the sorted prioritized packets.

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25. A packet transmission method comprising the steps of:

sorting received packets into prioritized packets and packets other than the prioritized packets;

accumulating the sorted prioritized packets;

capsulating the accumulated packets; and

transmitting the capsulated packet.